



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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ENFORCEMENT &  
COMPLIANCE ASSURANCE  
DIVISION

July 10, 2019

Mark Larsen  
Project Coordinator  
ANCHOR QEA, LLC  
1119 Pacific Avenue, Suite 1600  
Tacoma, Washington 98402

Re: Yakima Valley Dairies 2018 Annual Report  
Administrative Order on Consent ("Consent Order")  
Docket No. SDWA-10-2013-0080  
Yakima Valley Dairies, Washington

Dear Mr. Larsen:

EPA has completed our review of:

Yakima Valley Dairies 2018 Annual Report (March 1, 2019)

Based on our review, EPA has these comments:

General Comments

1. This Annual Report shows that the Dairies have made significant progress in controlling sources of nitrate to the drinking water aquifer since the Administrative Order on Consent ("Consent Order") was signed by the Dairies and EPA in 2013. Overall levels of nitrogen in the Dairies' crop fields have declined dramatically as shown in draft Annual Report Figures 17, 19 and 21. Since 2013, post-harvest fall nitrogen levels have declined in:
  - Cow Palace's fields by about 82%, from about 410 lbs/acre in the first three feet of soil to about 80 lbs/acre (Annual Report Figure 17)
  - Bosma Dairy's fields by about 75%, from about 720 lbs/acre to about 180 lbs/acre (Annual Report Figure 19)
  - DeRuyter's fields by about 67%, from about 1200 lbs/acre to about 400 lbs/acre (Annual Report Figure 21).

Application of manure to fields and irrigation of crops in those fields has been managed and the practice of flood irrigation has been eliminated, all in effort to help reduce the flow of nitrate into the underlying groundwater. Lagoons are in the process of being lined or abandoned to limit flow of nitrate from lagoons into the groundwater. Elevated nitrate levels in some of the downgradient groundwater monitoring wells appear to have begun declining because of the source control measures implemented under the Consent Order. In many sections of the Annual

Report, the progress that has been made to date is well described. Some sections need improvement to more accurately describe the work that has been done and the data that have been collected in accordance with the Consent Order.

2. Continued reductions of the excessive levels of soil nitrogen that existed in many of the Dairies' application field soils in 2013 is positive news. However, Section 5.5 of the Report states, "By the end of 2018, nitrate concentrations in 11 of 14 application fields associated with George DeRuyter & Son/D&A Dairies were below 45 ppm at the 2-foot depth." Thus, three application fields still do not pass this test after six years of nutrient management under the Consent Order. EPA is aware that the DeRuyter Dairy is constructing a nitrification/denitrification (NDN) system in their Lagoon 1 to address the problem of excess nitrogen at the Dairy, and that if the NDN system is successful in reducing the amount of nitrogen in the liquid manure, this will help the Dairy achieve the application of manure on their fields at agronomic rates. EPA expected, when we signed the Consent Order, that achieving 45 ppm at the two-foot depth in all the fields would require no more than a few years, after which there would be several more years for the reduction of nitrate loading to register in downgradient monitoring wells prior to the 8-year review. The 45 ppm objective must be met in all fields as soon as possible. The delay in achieving the nitrate soil concentration objective in all application fields will delay our ability to assess the effectiveness of source control actions that were agreed upon in the Consent Order.
3. The "Summary of Findings" section provides a statistical trend analysis of nitrate in some groundwater monitoring wells. Your analysis appears to be based on a 95% confidence interval, but the text does not provide justification for selecting 95%. Two wells with the most elevated nitrate concentrations, YVD-14(R) with a mean concentration of 99.1 mg/L nitrate-N, and DC-03 with a mean nitrate concentration of 175.6 mg/L, show no trend and are near and directly downgradient of uncontrolled discharges from many lagoons that are in the process of being lined. YVD-08, a well with an increasing trend that averages 30.3 mg/L, is immediately downgradient of an unlined lagoon.

Based on the nitrate concentrations measured in the monitoring wells, the direction of groundwater flow and their relative positions on the landscape, EPA recommends that the Bosma Dairy line the following lagoons in 2020:

- Lagoon 4A and Lagoon 4B, which are relatively large, may have gravel bottoms, and are likely contributing large nitrate loads to the drinking water aquifer upgradient of monitoring wells YVD-14(R) and DC-03, and
- Lagoon 14, which is a relatively large lagoon, has a gravel bottom and is likely contributing large nitrate loads to the drinking water aquifer directly upgradient of YVD-08.

Based on available information, lining these lagoons is likely to substantially decrease nitrate loading to the drinking water aquifer.

4. Detections of ammonia (see Section 4.4 Summary of Findings) during the past year in groundwater monitoring wells YVD-14R, DC-03, and DC-05 indicate that these wells were impacted by nitrate sources that entered the ground recently and from locations that are close to the wells (i.e., Dairy sources). Ammonia converts readily to nitrate... these source(s) of ammonia do not pre-date the Dairies. As noted above, YVD-14R and DC-03 are the two wells

with the most elevated nitrate concentrations out of all the monitoring wells. The nitrate concentrations in these wells are much higher than elsewhere in the Yakima Valley. Nitrate concentrations in monitoring well DC-03 have exceeded 240 mg/L which is, to the best of EPA's knowledge, the most elevated nitrate concentration in the State of Washington, and one of the most elevated nitrate concentrations ever measured in a groundwater well in the United States. Positionally, there are no upgradient residential septic systems that could be contributing any significant amount of nitrate to the elevated nitrate concentrations observed in these wells. Septic system effluent is typically about 45 mg/L nitrate-N which indicates that these wells are being impacted by a source or sources that are much more concentrated. Data collected by the Bosma Dairy shows that nitrogen content of the liquid manure in its lagoons is sufficiently concentrated --- about 1,500 mg/L --- to cause such elevated downgradient nitrate concentrations even after dilution with relatively clean groundwater.

The nitrate concentrations in YVD-14R and DC-03 are not likely to decline until leakage from nearby, upgradient gravel-lined lagoons at the Bosma Dairy are controlled through lining or abandonment. These lagoons are likely major contributors to the nitrate concentrations in these wells, although contributions from dairy crop fields and other dairy sources (manure composting areas, cow pens, etc.) are likely sources.

5. Section III.F.7 of the Consent Order Statement of Work states, "Respondents shall also endeavor to avoid transporting manure to locations where groundwater is known by Respondents to currently exceed 10 mg/L nitrate." These locations include areas upgradient of, within the boundaries of, and within two miles downgradient of, the Dairy Facilities. Applying manure (in any form including liquid manure, solid manure and composted manure) in amounts that exceed agronomic rates in these areas is likely to contribute to the loading of nitrate in the aquifer. Applying manure in these areas without calculating the agronomic rate of the receiving field and then applying in accordance with an agronomic rate risks contributing to nitrate loading.
6. EPA is concerned about the number of field capacity<sup>1</sup> exceedances that were detected at the three-foot soil depth in crop fields during the irrigation season. These field capacity exceedances indicate that the Dairies' irrigation practices are driving nitrate out of the root zone deeper into the soils where it will eventually end up in the groundwater. They also indicate that the Dairies' irrigation practices are facilitating the mobilization and migration of any historical (i.e., pre-Dairy) nitrate that may be remaining in the soil column through the vadose zone to the aquifer.

According to the information in Table 10, moisture levels exceeded field capacity at the 3-foot depth multiple times during irrigation season in each of these fields: CP-SU06, LD-SU08N, LD-SU14, LD-SU17, GDS-SU01, GDS-SU02, GDS-SU03, GDS-SU08, GDS-SU10, GDS-SU11, GDS-SU13, and GDS-SU14. The moisture level exceedances at the 36" depth, combined with the measured nitrate content in these fields at the 0-36" depth, indicate that these fields were sources of nitrate to the groundwater and downgradient residential drinking water wells in 2018.

For example, in fall 2018, in field GDS-SU08, a field that has not yet met the 45 ppm nitrate target, the Dairies measured 49 ppm nitrate in the first foot of soil, 63 ppm in the second foot, and 89 ppm in the third foot:

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<sup>1</sup> As noted in the draft Annual Report Section 5.2, "The maximum amount of water that is held in soil against the pull of gravity is referred to as "field capacity."

## GDS-SU08

Soil Depth	Nitrate (ppm)	Nitrate (lbs/acre) <sup>2</sup>	Acres in Field	Total (lbs)	Tons
1' (0-12")	49	205.31	165.5	28,789	14
2' (12-24")	63	263.97	165.5	38,995	19
3' (24-36")	89	372.91	165.5	61,717	31
Total (0-36")	---	---	---	---	65

There were approximately 65 tons of nitrate in the first three feet of soil in this field in 2018. As you are aware, nitrate is very mobile in water. A detection of soil capacity exceedance at the 36" depth indicates that water entered the soil at the land surface, passed through 36 inches of soil containing 70 tons of highly mobile nitrate, and moved past the soil sensor at 36", headed toward the drinking water aquifer carrying nitrate. In this field, detections of soil capacity exceedance occurred eight times during 2018. Thirty-six inches is well below the root zone. This field, and similar fields, were sources of nitrate to the aquifer and downgradient drinking water wells in 2018.

The 31 tons of nitrate in the third foot is below the root zone and is unlikely to be taken up by plants, and is therefore likely to increase nitrate concentrations in groundwater. The source control efforts under the Consent Order were in part intended to avoid additional contributions to groundwater from the Dairies once the source control measures were put in place. Thirty-one tons of nitrate is enough to cause a vast quantity of water to exceed the MCL which is 10 parts *per million*. This example pertains to just one year in one field. In 2013 there were 356 tons<sup>3</sup> of excess nitrate in all the Dairies' fields in the third foot depth, most or all of which is now deeper in the soil column on its way to the aquifer or already in the aquifer.

Because each soil moisture detection of field capacity at the three-foot depth indicates the mobilization of tons of nitrate toward the drinking water aquifer, we encourage you to continue efforts to reduce the number of detections by adjusting your irrigation systems as necessary.

7. Tables. All tables must be modified to indicate the units that are used on *every* page of every table. For example, Table 6 is 22 pages long, but only on the last page is there this note: "All units in pounds per acre (lb/ac)."
8. Add some brief historical context to sections such as Section 2 (Alternative Drinking Water Supply). Briefly describe the agreed Consent Order actions, the "area of concern," the total number of residences in the area of concern, the number of residences that agreed to having their well sampled, the number of residences that exceeded the MCL, the number that already had reverse osmosis treatment units installed, etc.). In Section 3.2 Backflow Prevention, state how many backflow devices were installed at each Dairy. Add a brief section for Furrow Irrigation and state which crop fields were converted to sprinkler irrigation and when.

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<sup>2</sup> Multiplied by the conversion factors derived by the Dairies<sup>2</sup> for the soils in this field at these depths (Inland Earth Sciences for George DeRuyter & Son and D & A Dairies, 2013 Post-Harvest Sampling Report Dairy Application Field Management, August 2015. Table 2.)

<sup>3</sup> Cow Palace, Bosma, and DeRuyter 2013 Post-Harvest Sampling Reports Dairy Application Field Management, August, 2015.

## Specific Comments

1. **Sections 1.1, 1.2, and 1.3.** Move these sections to the end of the body of the Report. They are less important than the work that was done that is directly in line with the Consent Order objectives that are listed in the introduction.
2. **Section ES-1, Executive Summary.**
  - a. The sentence, "These transfers were to locations where nitrate concentrations in groundwater do not appear to exceed 10 mg/L," is incorrect. Delete this sentence and replace it with, "Some of these transfers were to locations where nitrate concentrations in groundwater exceed 10 mg/L (locations C2, D5, D6, D7 and D8 in Figure 2), and some of these liquid manure applications were inappropriately made onto crop fields that exceeded 45 ppm nitrate in the second foot (12" to 24" soil depth)."
  - b. Delete the sentence, "'Nitrate concentrations in application fields at George DeRuyter & Son /D&A Dairies continued to show downward movement toward the goal of 45 ppm." Figure 19 indicates that this is not the case, and Figure 20 shows that nitrate concentration in some fields appear to be recently increasing. Replace it with, "From Spring 2018 to Fall 2018, the number of DeRuyter fields not meeting the 45ppm goal increased from one (GDS-SU08) to three (GDS-SU06, GDS-SU-07 and GDS-SU08). Nitrate concentrations no longer show downward movement at the two-foot level in several DeRuyter fields. Corrective action is needed for these fields to reverse the increasing trend in post-harvest nitrate concentrations." Add text that describes the corrective actions that will be implemented and increased monitoring activity to assess whether the corrective actions are working.
  - c. Modify the phrase, "...and four lagoon abandonment projects nearly completed at Liberty/H&S Bosma Dairies," to "... and four lagoon abandonment projects initiated at Liberty/H&S Bosma Dairies."
  - d. Delete the sentence, "Overall, there were minimal moisture levels exceeding field capacity at the 3-foot depth considered over the entire 2018 season." Replace it with, "There were 69 moisture levels exceeding field capacity at the 3-foot depth." As made clear in the general comments above, EPA considers 69 exceedances to be significant.
3. **Section 2.1, Ongoing Drinking Water Actions.** This section is vague... more information is needed. As you are aware, reverse osmosis units must be properly maintained to ensure that they are functioning properly and protecting public health.
  - a. State the number of reverse osmosis units the Dairies are currently maintaining within the 1-mile downgradient boundary. Add a table that shows the number of reverse osmosis units the Dairies maintained each year from 2013 through 2018.
  - b. Explain all maintenance efforts made by the Dairies to ensure the units were working properly during 2018 (number of units, actions taken, etc.).

- c. Describe any monitoring of private wells, including measurement of nitrate in the drinking water, done by the Dairies during the year (or state that no such monitoring was done). Provide any monitoring results.

4. **Section 3.5 – Lagoons.**

- a. To demonstrate the ongoing progress in lining the lagoons, add a new figure to the Report that shows a pie chart, with each of the Dairies' 41 lagoons assigned a wedge, the size of which is based on the *pre-lining volume* of the lagoon. Label each lagoon wedge in the pie chart. Tint each of Dairies' lagoons a different color (e.g., blue for Dairy #1, green for Dairy #2, red for Dairy #3). Darken the colors of the lagoons that have been lined --- for example, color Dairy #1's lined lagoons very dark red, and their unlined lagoons very light red). Refer to the new figure in the text.
- b. Sections 3.5.1, 3.5.2, and 3.5.3. These sections are not informative... they consist mainly of lists of submittals and response letters without meaningful description of the substantive field work that was done to reduce leakage from the lagoons. Delete them and replace with:
  - (1) For each Dairy, provide three organizational subsections: Lagoon Lining Predesign, Lagoon Lining (or Lagoon Lining and Abandonment, as appropriate), and Lagoon Operations and Maintenance.
  - (2) In each Lagoon Lining Predesign subsection, describe the predesign work that was done for each lagoon and summarize the results.
  - (3) In the Lagoon Lining subsections, describe the basic liner design that each Dairy is implementing (i.e., Bosma and DeRuyter Dairies – FML over GCL --- Cow Palace, double FML).
  - (4) Describe the leak detection system that each Dairy has selected.
  - (5) Identify by name the lagoons that the Dairy lined in previous years and indicate the year that each lagoon was lined.
  - (6) List each lagoon that each Dairy lined in 2018, and state the pre-lining and post-lining capacity (volume in gallons) of each lagoon.
  - (7) Show the EPA-approved schedule for completing the remaining lagoons.
  - (8) In Section 3.5.1 (Cow Palace), describe the challenges the Dairy experienced in excavating the contaminated soil out of the NE Catch Basin. Explain that because of delays in being able to excavate all the contaminated material, the Dairy requested, and EPA granted, an extension of time beyond the December 31, 2018 due date for completing the closure of the lagoon. Describe the procedure for testing the lagoon soils, list the date(s) that the soils were tested, and list all test results. State the date that the abandonment was completed.

- (9) In Section 3.5.2 (Bosma), describe the challenges the Dairy experienced removing all the contaminated soils from abandoned Lagoons 8, 9, 19 and 20, and the resulting delays. Explain that because of delays in being able to excavate all the contaminated material, the Dairy requested, and EPA granted, extensions of time beyond the December 31, 2018 due date for completing the closure of the lagoons. Describe the procedure for testing the lagoon soils, list all of the date(s) that the soils were tested and list all of the test results. In addition, describe the Dairy's request for consideration of the vermiculture treatment system, the Dairy's request for relief from the approved schedule for lining the lagoons, and the Dairy's decision not to construct the vermiculture system due to cost considerations.
- (10) In Section 2.5.3 (DeRuyter), there is discussion of the NDN system without enough description of what it is. Briefly describe the components of the NDN system, where it will be constructed, its purpose, and its performance goal and schedule. Explain that the NDN system was originally due to be installed by December 31, 2018, but due to construction delays (describe any delays), EPA has extended the completion date, at the Dairy's request, until July 1, 2019.
- (11) Section 4.2.2, Monitoring Well Pressure Transducers. Add this sentence to the end of the paragraph: "Pressure transducer data is summarized in the figures in the quarterly groundwater reports."
- (12) In each Lagoon Operations and Maintenance subsection, provide a list of all the Dairy's lagoons that have been lined to date, the year that each lagoon was lined, and the year that leakage testing must be performed in accordance with the schedule in each lagoons' O&M Plan. Briefly summarize the O&M activities that were performed in 2018 at each lined lagoon. In Cow Palace's O&M subsection, describe any evidence of leakage through the upper FML for each lagoon (i.e., number of gallons collected in the sumps and frequency).

## 5. **Section 4.4, Summary of Findings**

- a. Delete all the text under the third bullet in this section (including the three sub-bullets) regarding nitrate trends.
- b. EPA recommends that Respondents immediately investigate the source of increasing nitrate concentrations in monitoring well YVD-08. Respondents should investigate upgradient underground pipes by potholing and soil testing. Soil testing of the vadose zone should be completed to identify nitrate that may be moving through the soil column, and the potential for future lagoon decommissioning activities to impact groundwater should be evaluated by sampling soil beneath Lagoon 14 (which is still unlined) at ten-foot intervals to groundwater. EPA recommends that Respondents submit a plan to EPA within 30 days for this additional work. The increasing nitrate concentrations in this monitoring well threaten the water quality in downgradient drinking water wells.

- c. Modify the following sentence as indicated: “There ~~Have been no~~ were three ammonia detections above the MDL of 0.07 mg/L since First Quarter 2017 ~~--- except for two~~ detections in First Quarter 2018 (0.10 mg/L in well DC-05 and 0.17 mg/L in well YVD-14(R) and one detection in Second Quarter 2018 (1.22 mg/L in well DC-03). Ammonia breaks down readily into nitrate. Detections of ammonia in these wells indicate that these nitrogen sources were close to the well and infiltrated the land surface relatively recently (i.e., Dairy sources).”
- d. Delete the paragraph that begins, “Nitrate trend conclusions are based...” Delete the Mann-Kendall analyses plots and associated trend analyses in Appendix D.

- 6. **Section 5.1 – Use of Agronomic Rates for Nutrient Applications.** In the second paragraph, delete the sentence, “The fate of this nitrogen can be expected to be one or more of the following: 1) available to the crop through capillary action caused by high evaporation; 2) held within the profile for possible later use from current or future crops; 3) denitrified if wet conditions develop; or 4) moved downward farther into the profile.” This is excess nitrogen that is likely to end up in the groundwater. Soil conditions at the Dairies are generally not conducive to denitrification. Wet conditions are likely to facilitate the transport of nitrate deeper into the soil column toward the groundwater.
- 7. **Section 5.2 – Irrigation Water Management.** State how many moisture sensors were initially placed in the fields, how many broke or were functioning poorly during 2018, how many were fixed, and how many were functioning as designed on December 31, 2018.
- 8. **Section 5.6.1 – Off-Site Liquid Manure Transfers**

Paragraph III.F.7 of the Consent Order Statement of Work states, “Respondents shall also endeavor to avoid transporting manure to locations where groundwater is known by Respondents to currently exceed 10 mg/L nitrate. Applications of manure on crop fields in such areas is allowed only if “post-harvest” soil sample is 45 ppm NO<sub>3</sub>-N or lower at the 2 foot depth.”

The draft Annual Report states that the DeRuyter Dairy did not comply with this requirement when it applied 373,500 gallons of liquid manure to three off-site fields prior to receiving soil nitrogen sampling data results, which later showed they exceeded 45 ppm at the second foot [fields at locations D5 (94.6 ppm), D6 (82 ppm), and D8 (62.7 ppm) as shown in Figure 22].

The over-application at location D5, which is clearly upgradient of residential and monitoring wells that exceed the MCL, is problematic because it appears there was enough nitrate in just the second foot of soil to grow the entire winter crop. Although unspecified in the Report, if we assume that the crop is triticale, the 94.6 ppm 2-foot soil nitrate measurement translates to approximately 330 lbs/acre of nitrate, which greatly exceeds the 200 lbs/acre necessary to grow a triticale crop according to Table 6. There’s roughly 130 lbs/acre of excessive nitrate in the second foot, plus an unmeasured amount of nitrate in the first foot, plus the liquid manure that was applied, all of which was excessive. In other words, the planned winter crop did not come



close to mitigating the problem. This overapplication may postpone the achievement of downward trends in downgradient monitoring wells.

Add language to this section to explain the steps that the Respondent will take to prevent this situation from recurring.

9. **Section 5.6.3 – Compost Production.** The fifth paragraph states, “During 2018, finished compost was shipped by the Dairy to one property located within the 1-mile downgradient boundary. Transfer quantity and location details are described in Table 23 and Figure 24. Available groundwater data indicate this shipment was to a location where nitrate concentrations in groundwater do not appear to exceed 10 mg/L.” However, Figure 3 in “Yakima Valley Dairies Provision of Water Residential Well Sampling Report” (December 20, 2013) indicates that there was a residential drinking water well (#RW-1033) with an installed reverse osmosis treatment unit installed nearby and downgradient of Field C1, which indicates the groundwater at that location is contaminated. The second foot of soil in the field should have been sampled. Revise the report accordingly and explain the steps that the Respondent will take to prevent this situation from recurring.
10. **Tables 4, 5 and 6 - Application Field Management Summaries and Recommendation Calculations, Crop Years 2015 to 2018**
  - a. Correct the tables as appropriate to show the actual field applications in 2018. For example, Table 6 shows that for GDS-SU06 there was no field application of nitrate after March 2018 (before the Spring soil samples were collected), and Spring 2018 nitrate concentrations were 10 and 15 ppm N at the 1 ft and 2 ft sample zones, respectively. The Fall 2018 soil sampling report shows that the October 2018 samples for GDS-SU06 were 65 at the 1 ft and 62 ppm N at the 2 ft. Based upon these results, it appears that applications were made to GDS-SU06. Add the missing application data to the tables. It appears that nitrogen was over-applied to fields GDS-SU06 and GDS-SU07, causing them to exceed the 45 ppm target in Fall 2018 after they had met the target in Spring 2018.
  - b. A footnote on the last page of each of these three tables states, “All units in pounds per acre (lb/ac).” This is not accurate. For example, on electronic page 171 in Table 6, the units of the 1’ and 2’ soil nitrate measurements (49 and 63) are ppm, not lb/ac (see Table 15, electronic page 189). Correct these errors. Every page of every table must accurately clarify all the units that are used in the table.

**Post-Harvest 2018 – Crop Year 2019**

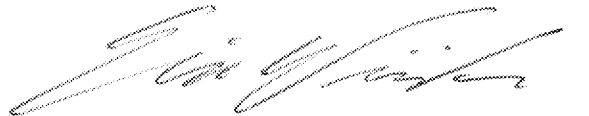
<b>Field</b>	<b>GDS-SU08</b>
<b>Acres</b>	<b>165.5</b>
Report Number	F18-0739
Sample Date	10/18/2018
Previous Crop	Alfalfa
Upcoming Crop	Alfalfa
Crop Rotation Changes	No
Nitrogen Source	Liquid Manure
<b>Soil Measurements</b>	
1' Nitrate	49
2' Nitrate	63
1'+2' Root Zone	112

11. **Table 10 - Irrigation Sensor Review – 2018 Field Capacity Exceedance List.** Clarify the purpose of this table by adding this note to the bottom of each page of the table: “Note: This table shows the number of times that the field capacity moisture level was exceeded at the 36” soil depth during 2018.”
12. **Table 16** – On electronic page 192, the Fall 2017 3-foot data is incorrectly grouped with the Spring 2018 data. Correct the error.
13. **Figure 1** – Delete the word “groundwater” from the figure title or replace the entire title with: “Contaminant Transport Conceptual Site Model.”
14. **Figure 2** – Delete the word “groundwater” from the figure title or replace the entire title with: “Contaminant Transport Conceptual Site Model.”
15. **Figure 20 - 2018 George DeRuyter & Son/D&A Dairies Application Field Nitrate Exceedances in the Second Foot.** Two charts are shown for each field. Clarify that the top chart for each summarizes the “Spring” soil samples and the lower chart for each summarizes the “Fall” sample data. “F” and “S” are insufficiently descriptive.

All comments in this letter that are not specific to the year 2018 must also be addressed in future annual reports.

Pursuant to Paragraph 14 of the Consent Order, Respondent must address these comments and re-submit this document no later than August 7, 2019. You may contact me at (206) 553-6904, or your legal counsel may contact Jennifer MacDonald at (206) 553-8311, if you have any questions regarding this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Winiecki". The signature is fluid and cursive, with a long horizontal stroke at the end.

Eric Winiecki  
EPA Project Coordinator  
Enforcement and Compliance Assurance Division

cc: Jennifer MacDonald  
Rene Fuentes